Remarks

Claims 1-29 were pending in the application. Claims 1, 2, 4, 25, 26, 28, and 29 were rejected. Claims 3, 5-24, and 27 were merely objected to and no claims were allowed. By the foregoing amendment, no claims are canceled, claims 4 and 11 are amended, and claims 30-53 are added. No new matter is presented.

Added Claims

Added method claims have unity with the existing system claims. Support for added method claims is seen as follows:

New Claim	Support
Claim 30	Claim 1
Claim 31	Claim 2
Claim 32	Claim 3
Claim 33	Claim 5
Claim 34	Claims 6 and 7
Claim 35	Claim 8
Claim 36	Claim 9
Claim 37	Claim 10
Claim 38	Claim 11
Claim 39	Claim 12
Claim 40	Claim 13
Claim 41	Claim 14
Claim 42	Claim 15
Claim 43	Claim 16
Claim 44	Claim 17
Claim 45	Claim 18
Claim 46	Claim 19
Claim 47	Claim 20
Claim 48	Claim 21
Claim 49	Claim 22

Claim 50	Claim 23
Claim 51	Claim 24
Claim 52	Claim 25
Claim 53	Claim 26

Allowable Subject Matter

Applicant appreciates the indication of allowable subject matter in claims 3, 5-24, and 27.

Claim Rejections-35 U.S.C. 112

Claim 4 was rejected under 35 U.S.C. 112(2). Applicant respectfully traverses the rejection.

The Office asserted: "The examiner can not ascertains in claim 4 what is [the] so called 'means' to received known images from an external source". 4/28/09 Office action, page 2, lines 8&9. The Office's desire is not entirely clear. In the interest of advancing examination, the "means language" has been eliminated.

However, a person skilled in this field would clearly understand the scope of a "means to receive known images". Page 3 of the present pre-grant publication, at paragraph 0041, mentions that system stores images captured by the system. It mentions also that, rather than storing only images captured by the system, images may be loaded from an external source, such as an external database of images. The skilled addressee would clearly understand that any known means of transferring image data from another source to the processing and control means may be employed, for example data ports on the source and destination devices connected by a suitable data cable.

Claim Rejections-35 U.S.C. 102

Claims 1, 28, and 29 were rejected under 35 U.S.C. 102(e) as being anticipated by Lindstrom (US6644080). Applicant respectfully traverses the rejection.

Lindstrom discloses a system for positioning a worksheet for bending by a press brake. The system of Lindstrom is aimed at detecting the position of the worksheet relative to the bending tools with a laser system and automatically adjusting the position of the worksheet by

comparing the position relative to a programmed position for a particular bend. Thus, the system of Lindstrom appears to include a tool moving through a known path of movement and detecting the location of objects (at least the workpiece) in or adjacent the path of movement.

However, Lindstrom does not determine a vertical distance between the objects and the tool. Column 6, lines 8 to 14 of Lindstrom states that the system evaluates the position of the edge of the worksheet with reference to the plane along which the tools lie. That is the horizontal position of the worksheet is determined relative to the plane of the vertically moving tools. The system does not determine the vertical distance between the worksheet and the tool, let alone any other object.

This difference is clear in the differing purposes of the present invention and Lindstrom. Lindstrom is aimed at determining whether the worksheet is directly under the tool in the correct horizontal position so that the tool strikes the worksheet in the correct place. As defined in claim 1 of the present invention, in the first mode of operation the distance between the tool and the leading edge is maintained between minimum and maximum values. This may have several specific further aspects referenced in the remaining claims. For example, the distance between the worksheet or other object and the tool may be determined so that the tool may be automatically retracted or lowered if the worksheet is moved vertically. That is, if the worksheet is moved up such that the distance between the worksheet and tool falls below the minimum value, the tool is retracted to maintain the distance between said maximum and minimum values. Also, if the tool were moved down such that the distance was then greater than the maximum value, the tool would be moved down. The apparatus shown in Lindstrom is not concerned with the distance between the worksheet (or other objects) and the tool but the correct horizontal positioning of the worksheet. The apparatus of Lindstrom therefore includes no feature to determine the distance between the tool and worksheet and maintain the distance between minimum and maximum values.

The effect of having the minimum and maximum values is contrasted, for example, with a simple retract to a predetermined position. In the prior art, the position is typically a maximally retracted position. Alternatively, it is a predetermined position associated with work stage. *See* present paragraph 0005. Instead of having an automatic retract to a predetermined position, the claim 1 minimum and maximum value define a desired retraction distance (or range thereof) so that the retracted position is not a single predetermined retracted position. This can increase

productivity and can limit opportunities for insertion of hands or other foreign objects in the path of the tool.

Claim Rejections-35 U.S.C. 103

Claims 2, 25, and 26 were rejected under 35 U.S.C. 103(a) as being unpatentable over Lindstrom in view of Appleyard (US6903327) and Chen et al. (US6122023). Applicant respectfully traverses the rejection.

Only Appleyard was further asserted against claim 2. Appleyard was cited for detecting the presence of obstructions. However, even if combined with Lindstrom, this does not cure the deficiencies in the underlying rejection of claim 1, namely, the maintenance within minimum and maximum values.

Chen et al. was then cited against claims 25 and 26 as disclosing a laser diode. The Office asserted Chen et al. as disclosing "a laser diode and the current through the laser diode is modulated to create varying speckle patterns and thereby improve resolution of the received image." 4/28/09 Office action, page 4, lines 18&19. The Office further asserted that it would have been obvious "to use such [*sic*] the light emitting means which includes a laser diode and the current through the laser diode is modulated to create varying speckle patterns and thereby improve resolution of the received image in order to improve the overall the resolution of the images by eliminating speckle." 4/28/09 Office action, page 4, penultimate line-page 5, line 2. This is mere speculation. Chen et al. involves "a non-speckle liquid crystal projection display system" such as for use in small electronic equipment. Col. 2, lines 56-57, 33-34, and 15-19. No analogy has been established between this and the present invention (or the underlying Lindstrom/Appleyard combination). In Chen et al., it is used as a display. In the combination, it is used as a light source for imaging. The Office has provided no reasoned explanation for such a change in function.

Accordingly, Applicant submits that claims 1-53 are in condition for allowance. Reconsideration and further examination are requested. Please charge any fees or deficiency or credit any overpayment to our Deposit Account of record.

Respectfully submitted,

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